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Million Citrus Tree County

By Aurthur C. Brown, Associate Quarantine Inspector

Many Floridians will be surprised to learn that according to the tree count completed by the Grove Inspection Department of the State Plant Board as of December 31, 1931, there are six counties in Florida in which are growing a million or more citrus trees, exclusive of nursery stock. Fifteen years ago even the most rabid of county boosters would have hesitated to predict or even dream that within a few years there would be over a million citrus trees planted within the county boundaries. Even ten years ago, after Polk County had achieved this distinction, few people have claimed that the membership of the "Million Citrus Tree" association would be increased to six within the next decade. Yet this has come to pass.

Polk, Orange, Lake, Hillsborough, Volusia and Highlands Counties are all members of this select group, with the imposing total of 13,337,666 citrus trees. This is 55.06 per cent of the total of 24,324,850 citrus trees growing in the entire state.

Polk County was the first county to enter this distinguished group. The census published by the Plant Board in 1919 disclosed the fact that there were 1,583,800 citrus trees growing in Polk County. Unfortunately figures showing the distribution by varieties are not available.

When the second Plant Board tree census was completed on December 31, 1923, it was found that the membership of this group had increased to four. Orange County, with 1,547,501 trees, Lake County, with 1,318,180, and Dade County, with 1,078,773, having qualified for membership.

The third census, completed July 1, 1928, showed that while one additional county had reached the million tree mark, another county had dropped out. Hillsborough qualified with 1,398,411 citrus trees, while Dade County was forced to withdraw from the group.

The last tree count completed by the Plant Board, December 31, 1931, disclosed the interesting fact that two additional counties had entered the elect "Million Citrus Tree" association. Volusia and Highlands, with 1,055,404 and 1,005,158 citrus trees respectively had increased the group to six.

In the tables shown below will be found a comparison of the number and varieties (orange, grapefruit and tangerine) of citrus trees in these counties as indicated by the counts of 1923, 1928 and 1931. This table includes both bearing and non-bearing trees. The line of distinction between these groups has been arbitrarily placed at three years from the nursery. It is granted that a three year old tree can hardly be considered as actually in bearing, but it must be remembered that these counts are

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TABLE I—Showing Counties in State Having 1,000,000 or More Citrus Trees

	1919	1923	1928	1931
1. Polk	1,583,800	3,818,566	5,440,996	5,456,735
2. Orange		1,547,501	2,198,762	2,382,528
3. Lake		1,318,180	1,593,078	1,000,222
4. Hillsborough			1,398,411	1,479,619
5. Volusia				1,055,404
6. Highlands				1,005,158

TABLE II—Showing Increase in Citrus Plantings in Counties Having 1,000,000 or More Citrus Trees, By Years and By Varieties

	ORANGES			GRAPEFRUIT			TANGERINES		
	1923	1928	1931	1923	1928	1931	1923	1928	1931
Polk	2,640,422	3,445,242	3,184,093	1,079,018	1,735,320	1,776,087	94,182	255,997	438,002
Orange	1,268,789	1,704,006	1,814,142	223,161	246,693	292,220	53,280	234,045	252,884
Lake	940,590	1,102,255	1,322,741	306,026	332,127	471,213	68,286	152,504	178,258
Hillsborough	608,958	837,613	987,325	122,479	190,683	293,717	8,376	96,843	104,471
Volusia	510,866	670,701	764,352	64,544	82,721	98,632	73,369	188,206	180,616
Highlands	288,784	542,096	574,953	232,649	295,991	342,375	18,309	68,343	71,435
Total Six Counties	6,258,409	8,301,913	8,647,606	2,027,867	2,883,535	3,274,244	316,302	995,938	1,225,166
State Total	10,912,716	13,660,461	14,549,074	4,780,496	5,592,187	6,412,268	609,107	1,677,042	1,987,594
Per Cent of State Total	61.0	60.7	59.4	42.4	51.6	61.6	61.9	59.4	61.6

State Plant Board Rules Revised

Memorandum of Information for Plant Quarantine Officers, Commission Merchants and Transportation Officials

Attention is directed to a number of changes and revisions which have recently been made in the rules and regulations of the State Plant Board of Florida, as well as to certain new rules which have been promulgated by the Board. These various actions have been taken by the Board in pursuance of its progressive policy of lightening the burden of restrictions on plant material movement as much as possible consistent with safety. It is believed that protection is in no way lessoned. At the same time, trade will be facilitated. The several actions with respect to rules are in line, it is thought, with the general trend toward uniformity and simplification.

A number of the state regulations which have heretofore been somewhat in conflict with Federal regulations covering the same subject matter have been so revised as to bring them into conformity with the quarantine requirements of the Plant Quarantine and Control Administration, United States Department of Agriculture, as applying to both domestic and foreign subjects. A new rule has been adopted covering the intrastate movement of peach and nectarine stock. This rule parallels the Federal quarantine on phony peach disease.

The state rule (No. 29) which has prohibited shipment into Florida of citrus fruits from the States of Texas, Louisiana, Mississippi, Alabama, and Georgia on account of the danger of introducing citrus canker has been repealed. Such progress has been made in the eradication of this disease that there is now a minimum risk involved in such shipments.

The state rule (No. 30) prohibiting the entry into Florida of California citrus fruits has been revised to permit of such shipments being made under proper safeguards to prevent the introduction of the brown rot disease of citrus in Florida plantings. During the past few years it has been discovered that a simple hot water treatment of citrus fruit will obviate in great measure the development of this disease in packed fruit. The utilization of this method of treatment, coupled with greatly improved sanitary practices in harvesting and packing operations, leads the Board to believe that California citrus fruit from certified and approved packing houses may, with safety, be accepted for transportation to and delivery in Florida. The revised rule permits shipment of lemons throughout the year, while shipment of oranges is restricted to the period from May 1 to October 1.

The recent actions of the Board are briefly summarized below:

Rule 11, with regard to revocation or suspension of certificates, was amended (January 11, 1932) by changing the words "Federal Horticultural Board" to "Plant Quarantine and Control Administration".

Rule 31 was repealed and a new rule adopted (January 11, 1932) paralleling the regulations of the Federal Government with regard to the movement of plants and other material likely to disseminate the Japanese beetle.

Rule 32 was repealed and a new rule adopted (January 11, 1932) paralleling the regulations of the Federal Government with regard to the movement of plants and other material likely to disseminate the European corn borer.

Rule 33 was repealed and a new rule adopted (January 11, 1932) paralleling the regulations of the Federal Government with regard to the movement of plants and other material likely to disseminate the gypsy and browntail moths.

Rule 35 was repealed and a new rule adopted (January 11, 1932) permitting the entry into Florida, under proper safeguards, of trees, plants, vines, shrubs and other material from foreign countries where the blackfly is known to exist. Rule 35 now parallels the rule of the Plant Quarantine and Control Administration on the same subject.

Rule 36A was repealed and a new rule adopted (January 11, 1932) prohibiting the entry of host fruits of the Mexican fruit worm from Mexico into the State of Florida. The list of host fruits now prohibited is identical with the list of host fruits prohibited entry into this country by the Plant Quarantine and Control Administration on account of this insect.

Rule 36B was repealed and a new rule adopted (January 11, 1932) paralleling the regulations of the Federal Government with regard to the movement of host fruits of the Mexican fruit worm from certain areas of Texas to other states.

Rule 36C was repealed and a new rule adopted (January 11, 1932) paralleling the regulations of the Federal Government with regard to the entry of host fruits of the Mediterranean fruit fly from countries and localities where this pest exists.

Rule 36D was repealed and a new rule adopted (January 11, 1932) prohibiting the importation into Florida of plants, parts of plants, fruits and vegetables from foreign countries unless in accordance with the provisions of the Plant Quarantine and Control Administration; this in order to prevent the entry of dangerous insect pests and plant diseases.

Rule 37, prohibiting the entry of banana plants or bulbs and of coconut trees, plants or nuts, was repealed on January 11, 1932.

Rule 39, prohibiting the entry of tung oil seed and trees from foreign countries, was repealed on January 11, 1932.

Rule 40, paralleling the Federal Government's regulations on the movement of narcissus bulbs, was amended (January 11, 1932) by substituting the words "Plant Quarantine and Control Administration" for the words "Federal Horticultural Board".

Rule 46 was adopted (January 11, 1932), declaring the West Indian fruit fly and each and every fruit and article infested therewith to be a public nuisance; and declaring a certain portion of Monroe County, Florida, to be infested with said insect.

Rule 47B was adopted (January 11, 1932), prohibiting the movement of host fruits of the West Indian fruit fly out of the area defined as infested by this insect; and providing for the transportation, under proper safeguards, of host fruits imported under the provision of Federal Quarantine 56, through such area to points outside.

Rule 30 was repealed and a new rule adopted (January 11, 1932), permitting the entry of California

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A Brought Back Citrus Grove

By W. T. Frazier, Berkeley, Calif.

In the spring of 1908 the writer purchased a citrus grove located near the village of Fallbrook, in Sand Diego County, California. San Diego County produces approximately eighty percent of the lemons grown in California.

Fallbrook is located at the terminus of the Oceanside and Fallbrook Branch of the A. T. & S. F. Ry in the northwest part of the county, about ten miles back from the ocean. It was then a village of not to exceed one hundred and fifty people, who with the surrounding population, were chiefly engaged in horticulture, agri culture, stock raising, and attending to other people's business. The writer then did not know much about the citrus branch of horticulture, not as much as he believes he now knows.

The property contained twenty acres, of which fourteen were planted to lemons, mostly of the Villa Frankie variety, three acres were planted to thin shall English walnuts, the remaining three acres were about equally divided between Washington Navel Oranges, and seedless grapefruit; in different places in the grove there were, also, four peach, four apple, two pear trees., and six grape vines, two of the Thompson seedless variety the other three were of a light colored table variety.

The property was brought to the writer's attention by a Los Angeles real estate agent. Every one including the writer admits "they understand their business." They are energetic, thorough, persistent, constantly out for the early worm, and a little guarded in their sales talk by the liberal use of "if".

One of the bunch took the writer to view the property and after an hour or less spent in looking over the land convinced the writer all needed was a little money with which to have a little pruning and cultivating done to transform the property from a liability to an income asset.

The trees were then twelve years old. The attractive feature to the transaction, if there were one, was the price asked for the property. It was twenty-five dollars per acre less than the price paid for nearby unimproved land. The place was owned by a man who had acquired it in satisfaction of a fifteen hundred dollar mortgage. The writer paid that sum for it. A few days after the title had become vested in me I visited my new purchase, accompanied by an expert citrus grower to view the property to learn its value and the best methods to change the proposition to the opposite side of the ledger. After travelling over the ground for an hour or two I asked the expert for his opinion of the proposition; nervously looking around, as if close confidence were needed, clearing his throat, and with an air one assumes when forced to inform a friend the greater part of his relatives are confined in the penitentiary, he gently informed me that if he owned the grove he "would see if he could not find some one he could give it to and escape prosecution for fraud, to the extent of the amount of the taxes on the property, that it was nothing less than a brush patch, and that if any more black scale were to get on the trees some of those in possession would have to move off."

The writer does not admit belonging to the weak-kneed division of humanity, but had there been a chair at hand which he could have occupied long enough to have permitted the cold perspiration to dry he would have accepted it.

We are told there is a bright side to every objectionable proposition. There certainly was one to the "Old Williams Lemon Grove", which the family later dubbed "Our Fallbrook Lemon and Walnut Ranch".

The climate of San Diego county is the most equitable of all in California. It is never excessively hot or cold. In parts of the county killing frosts have never been known. There was a tomato plant on the property which was four years old at the time we bought, during the time the vine had not been injured by frost. The property was located two miles south of Fallbrook and about ten miles westerly of the Santa Ysabel mountains, not far from the Pala Indian reservation. The peak of Smith mountain, the highest point in the range was often during the winter months covered with snow while the flowers about the house and on the lemon trees were in constant bloom. Often we could hear the surf beating on the beach near the old Spanish Mission, Del Rey, which is near the beach west of us.

After holding a family consultation we all concluded to visit our new acquisition. We arrived in Fallbrook at 5 p. m. of the day we left Los Angeles. We remained at the hotel that night and spent the following day on the ranch.

Everyone thereabouts had learned a sucker had been found for the Old Williams Ranch. Some of the well meaning citizens called on us that evening at the hotel, and informed us that had they known we wanted the place they could have saved us at least half of the purchase price, and suggested a course of improvements that would save the place, which consisted chiefly in pulling up the trees and making an olive grove or wheat field of the land. The day spent on the ranch was a beautiful one. We agreed with the natives that the place did not amount to much as a fruit ranch, but that it was a delightful location on which to build a vacation home, an institution most every one living in Los Angeles, of any pronounced social standing supported. To save my hide and future argument I heartily joined in the proposition.

A house of the California rural type, containing three rooms, was planned and built. One of the rooms was 10 x 20 feet fitted into a combined pantry, kitchen and dining room, next to which were two sleeping apartments each 10 x 12 feet, one of which had an outside door opening to the west, the supposed front, which made the room serviceable as a living room as well as a bed room. All rooms had eight foot ceilings and were well supplied with windows.

The structure was located on the center of a low ridge which crossed the property in a north and south direction near its eastern boundary, and from where a beautiful view of the country on all sides were had. Near one hundred feet south of the house was a beautiful clump of wide spreading pepper trees, in the fare edge of which was located a board shed structure for the storing of implements and field boxes, it was the only building originally on the place. The well was located near the center of the property where it had been dug to supply irrigation water.

Regardless of having been laughed at and made the butt of all sorts of real estate jokes, I concluded to at least give the property a better appearance as a country home. I was told of a grove which had been as tough a proposition as ours which had been rehabilitated. I inspected the property. I had not hoped to get the best of our trees to be as attractive as the worst of those on

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New Citrus Hybrids

By Walter T. Swingle, Principal Physiologist, T. Ralph Robinson, Senior Physiologist, and E. M. Savage, Assistant Plant Breeder, Division of Horticultural Crops and Diseases, Bureau of Plant Industry, in Circular No. 181, U. S. Dept. of Agriculture.

Hybrids of the Tangelo Group

In the course of breeding new types of citrus fruits numerous reciprocal crosses have been made, most of the varieties commonly grown being utilized as parents as well as some little-known citrus and related species. The most important of these citrus hybrids have been described in short papers from time to time, these decitranges, limequats, citrangequats, citranges, limequats, citrangequats, and tangelos.

The citranges are hybrids of the deciduous trifoliate oranges (Poncirus trifoliata (L.) Raf.), hardy as far north as Washington, D. C., and Philadelphia, Pa., and the common sweet orange (Citrus sinensis (L.) Osbeck). The citrange is the hardiest edible citrus fruit, but although often beautiful, the different varieties are very sour, have a bitter aftertaste, and are used only sparingly for "ade." The citranges make excellent stocks for the commonly cultivated citrus fruits and are used chiefly for this purpose.

The limequats are hybrids of the West Indian lime (Citrus aurantifolia (Christm. Swigle) and the kumquat, two species, Fortunella japonica (Thunb.) Swingle and F. margarita (Lour.) Swingle, being used in these hybrids. The limequats bear fruits much like ordinary limes in size, shape, color, and flavor, but the tree is much hardier than the lime and can be grown in far colder climates, nearly up to the northern limit of citrus culture.

The citrangequats, as the name indicates, are hybrids of the citrange and the kumquat, and they bear small acid fruits somewhat like limes but of inferior quality, The citrangequat tree, however, is much hardier than the West Indian lime or even the limequat, but is not quite so hardy as the citrange. Some of the citrangequats are being used for stock, to which purpose they seem to be fairly well adapted.

Of all these hybrids, the tangelos have attracted the most favorable attention because they yield a whole new series of orangelike fruits, many of them more beautifully colored than any orange and of exquisite flavor and aroma. But unfortunately they are often too soft to stand up well under long-distance shipment if packed in the usual way.

Previous Tangelo Hybrids

The tangelo, a hybrid between the tangerine (Citrus nobilis deliciosa (Ten.) Swingle) and the grapefruit (C. grandis (L.) Osbeck), was one of the first of the early crosses to be selected for pragation. Two varities, the Sampson and the Thornton, have been previously described, and trees of those varieties have been obtainable through the nursery trade, especially in Florida, since about 1915. The first crosses giving rise to these new fruits were made in 1897 at Eustis, Fla., by the senior writer, and in 1898 additional crosses were made by H. J. Webber. The severe freeze of 1899 acted as a check on the active development of these and other new hybrids, and it was five years or more before specimen trees yielded fruit for testing. A few small commercial groves in Florida are now planted to tangelos, chiefly of the Sampson variety, but the marketing is mainly confined to a private-order trade with fancy-fruit dealers or with individuals who appreciate the unique piquancy of these new fruits.

As pointed out in previous publications, the Sampson and Thornton varieties are handicapped as commercial fruits by certain characteristics that have restricted their planting. While thrifty in growth and prolific the fruit needs special care in handling in order to reach the market in salable condition. The modern packing house subjects citrus fruits to a rather involved process of cleaning and polishing before they are graded, sizer, and packed; therefore a good shipping fruit must have a fairly tough rind and solid flesh. The Sampson tangelo is so thin skinned that it is easily bruised; moreover, it is very susceptible to sun scald and has a tendency, especially when grown on rough lemon stock, toward the drying out of one or more segments, often confused with sun scald. This variety is also very susceptible to citrus scab; consequently it is difficult in some seasons to produce even a fair percentage of unblemished fruit. It turns yellow months before it is ripe, and colors to an attractive deep-orange tint several weeks before it is fully mature; in consequence it is often picked and shipped when much too acid for consumption. It is not at its best until February or March.

The juice of the Sampson tangelo has such a characteristic "tang" that it is in growing demand for making "tangelo-ade." In preparing this "ade" it is not necessary to use all tangelo juice, because the juice imparts a distinctive quality if added in the proportion of 25 per cent, or even less, to orange or grapefruit juice or to a mixture of these juices. This use of tangelo juice has afforded a profitable outlet for second-grade fruit and has helped to encourage the planting of this variety, especially in Dade County, Fla.

The Thornton tangelo matures much earlier than the Sampson, often being sweet and delicious in December, although holding well into March or even later. In appearance, it is somewhat coarse, with a roughened or pebbly rind; but its chief handicap is that when ripe it becomes so soft and puffy that it suffers injury when subjected to the regular packing-house treatment, and it therefore needs hand grading and packing to stand long-distance shipment. Notwithstanding these handicaps, both varieties have enthusiastic adherents and both will doubtless continue in cultivation, on a limited scale at least. (1)

Like many of the citrus hybrids, the Sampson tangelo comes true from

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(1) Through the cooperation of the Bureau of Chemistry and Soils of the U. S. Department of Agriculture, tests of the tangelos (Sampson and Thornton varieties) as sources of vitamin B were made in 1928. In these tests the tangelo compared with the parental fruits, tangerine and grapefruit. Charts showing the weight curves of rats fed the designated fruits as a source of vitamin B were prepared but as yet are unpublished. The following summary may be given at this time, with the approval of Breese Jones and E. M. Nelson, who carried out these vitamin tests: Both charts are in agreement in showing tangerine juice to be a better source of vitamin B than the juice of the other fruits fed, and also in that tangelo juice is approximately equal in vitamin B potency to grapefruit juice. Therefore with respect to vitamin B production the tangelo has inherited the characteristics of the grapefruit.

(2) The initials refer to the former Office of Crop Physiology and Breeding.

(3) Ridgeway, R. Color Standards and Color Nomenclature.

Hearings To Consider Status of Four Plant Quarantines

Control Administration of U. S. Department of Agriculture to Seek Public Sentiment on Efforts to Control Spread of Corn Borer, Japanese Beetle and Other Pests

Four publis hearings to consider the status and possible discontinuance of four important Federal domestic plant quarantines, those on the European corn borer, the Japanese beetle, the white pine blister rust and narcissus bulbs, will be held at Washington, D. C., March 24 to 28, upon order of Secretary Hyde, it is announced by the U. S. Department of Agriculture. The hearings will also consider the present value, need, and effectiveness of the quarantines.

"We are holding hearings on these plant quarantines to determine the publice sentiment about them. This is in line with the department policy to consider any changes in conditions which may have taken place since their establishment.

"What we propose to find out in these hearings is just how much benefit results from our efforts and if the cost is justified. Any person or group interested in the possible revocation of these quarantines may appear at the coneferences and be heard, either in person, or by attorney.

"The conferences will consider whether or not the investigation of control methods, parasites, and resistant varieties has reached the stage where Federal quarantines on interstate movement of plants should be removed; whether the spread of the diseases and pests has been so wide as to make further Federal control undesireable and inexpedient; and whether the States which are threatened by these pests and diseases are able to fight them as efficiently and economically as the Federal authorities can do it."

The conferences are scheduled to meet in the auditorium of the National Museum at 10 o'clock each morning of Thursday, Friday, Saturday, and Monday, March 24, 25, 26 and 28.

The March 24 hearing will be on the advisability of revoking the European corn borer quarantine, now effective in 13 States—Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Ohio, Michigan, Indiana and West Virginia.

In the Japanese beetle hearing March 25, the conference will consider especially whether the advantages of the quarantine restrictions justify the costs of the administration and the expense to the shippers in complying with them. The Japanese beetle quarantine is now effective in Pennsylvania, New Jersey, New York, Deleware, Connecticut, Massachusetts, Rhode Island, District of Columbia, Virginia and Maryland. Although there is no quarantine in Ohio and South Carolina, the beetle was discovered in those States last year.

The March 26 hearing will consider the quarantine on the white pine blister rust. The disease was discovered last year in Iowa, Maryland, Ohio, Virgina and West Virginia. If deemed necessary the quarantine may be extended to these five States and also to Delaware and the District of Columbia, both of which are surrounded by infested territory. White pine blister rust has existed heretofore in parts of Connecticut, Idaho, Maine, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, and Wisconsin.

The fourth hearing, March 28, will be on the quarantine and certification of narcissus bulbs for interstate movement. The narcissus quarantine covers all interstate shipments.

The States which produce a million or more narcissus bulbs a year are: California, Florida, Georgia, Illinois, Maryland, Michigan, Missouri, New Jersey, New York, Oregon, Rhode Island, North Carolina, South Carolina, Texas, Virgina and Washington.

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STILL ON THE JOB

Much may be accomplished in the matter of stabilizing prices through the medium of orderly marketing—of this there can be no doubt—but, in our efforts to achieve orderliness, we must not forget that those two old twins, supply and demand, are still on the job—and that they are working while we sleep.

We must remember that in years of over-supply special efforts must be exerted to create demand. Recognition of this fact is seen in the present effort of the Florida Citrus Growers Clearing House Association and the Florida Citrus Exchange to stimulate consumer demand for grapefruit through the creation of a mutual fund for the advertising of Florida grapefruit. Unfortunately, the realization of this condition and the creation of the advertising fund, came too late in the season to be of material benefit to the grower this year. The campaign should have been inaugurated at the beginning of the season, not at its close.

With an ever-increasing supply of grapefruit by reason of increased acreage in Texas and increasing production in Florida, Arizona and California, the necessity for increasing the demand is becoming more and more imperative. This increased demand can be created only through increased sales effort and the stimulating effect of continuous, aggresive advertising over a period of many months—probably over a period of many years. We should prepare to meet the situation by creating a demand sufficient to meet the ever-increasing supply—and we should prepare to do it now.

THE SILVER LINING

The Orlando Sentinel, published in one of the leading citrus production centers and the home of many of Florida's strong shipping agencies, sees nothing to justify a feeling of gloom on the part of Florida grove owners. The Sentinel says:

"The citrus industry has it ups and downs and its problems just as all other industries do. But a check up on industries generally for the past twelve months will probably show the Florida citrus industry in such favorable light as to place it well toward the top, if not at the top."

This certainly is true, though it may be hard for the grower who sees the returns for his crop coming back in "the red" to believe it. But what producer in other lines is doing better?

Continuing, the Sentinel says:

"Orange groves in Florida have held their values wonderfully well during the long season of the depression. While there are groves that can be bought at bargain prices where owners are financially embarassed, the genreal run of groves hold to stable values. With improved business conditions, grove prices will go higher."

In all of which we heartily concur. The citrus industry is far from being in the bad way which the pessimists would have us believe.

THE GREEN FRUIT LAW

Florida's "green fruit" law, which admittedly is not perfect, has yet fully justified itself in the record established during the first year of its operation.

A report just issued by Nathan Mayo, commissioner of agriculture, brings this fact forcibly to the fore. It proves beyond question that the operation of this law has done much toward curtailing the shipment of unripe and unfit fruit from Florida during the early days of the season.

By fixing a minimum juice content, this law eliminated the shipment of so-called "ricey" fruit. This, coupled with the enforcement of the non-arsenic law holding back fruit artificially forced to maturity, had the effect of curbing early shipments, as shown by the fact that during September, 1931, the total shipment from Florida amounted to only 61,336 boxes as against a total of 395,699 during the previous September.

During the inspection period, from Spetember 1 to December 1, a total of 32,596 boxes of fruit were destroyed by the inspectors as being unfit for shipment. This included fruit destroyed at packing houses and that taken from trucks carrying fruit designed for out of state markets.

The green fruit law still needs alterations and strengthening, but it has demonstrated that as it stands it is a vast improvement over previous enactments.

The coming of Richard Whitney, international banker and capitalist to Florida to invest in concerns dealing directly and solely with citrus interests, demonstrates again that outsiders have abundant faith in the future of the citrus industry in Florida—more faith, in fact, than some Floridians engaged in the industry.

Our marketing problems will never be solved until we have at least partially solved our production problems. Until we produce the kind of fruit the consumer demands, we cannot hope to secure from the consumer the price we think we ought to have.

Secretary Hyde Announces Rules For Making Loans From Farm Board

The regulations governing crop production loans in 1932, to be made by the Secretary of Agriculture under the provision of the Reconstruction Finance Corporation Act authorizing the allocation of $50,000,000, for these loans, were made public by Secretary Hyde. These regulations provide that loans may be made by representatives of the Secretary of Agriculture, in all States except Connecticut and Pennsylvania, to farmers who can not obtain crop production credit from other sources. In Connecticut and Pennsylvania the State laws make no provision for the taking of crop liens, the security for loans which the act requires.

The amount of each loan will be based on the acreage of specific crops to be planted by the borrower in the spring of 1932 and on the requirements of individual borrowers for supplies necessary in the production of these crops. For instance, some borrowers will have feed for workstock but will need to purchase seed. Others will have seed but need funds to purchase fuel and oil for tractors. The maximum loan to any borrower will be $400 and the total of loans to the tenants of any land owner in any one county will be $1,600. The interest rate in all cases will be 5½ per cent.

Loans for financing the planting of cotton and tobacco will be made on acreage not more than 65 per cent of the acreage devoted to these crops in 1931, if the owner, share cropper, or tenant planted more than ten acres of cotton or more than three acres of tobacco last year.

In counties in which fertilizer is not commonly used the maximum loan per acre will be $3 for all crops except truck crops, including potatoes and sweetpotatoes, on which a miximum rate of $12 is allowed. Where fertilizer is necessary for crop production the maximum rates are $6 for all crops except tobacco and truck crops, the rate for tobacco being $10 and that for truck crops $20. Not to exceed $1 per acre of loans made at any of these rates may be used for repairs and miscellaneous expenses of crop production other than seed, fertilizer, feed for workstock and fuel and oil for tractors.

Special provision is made for additional loans for the purchase of materials to protect crops from insects and plant diseases where spraying or dusting is necessary. These loans will be at rates not to exceed $2 for cotton and tobacco and $4 for truck crops. Fruit growers may borrow not to exceed $25 per acre for fertilizer and spraying materials for orchards and vineyards. All loans for these purposes are included in the limit of $400 on the individual loan.

Loans will not be made to persons who did not engage in farming in 1931, nor to minors. Loans for summer fallowing are not authorized. The money loaned from this appropriation may not be used for the purchase of livestock, the feeding of livestock other than workstock, the purchase of machinery, or for payment of taxes, debts, or interest on debts.

Any farmer who desires to obtain a loan will make application on a form provided by the Secretary of Agriculture and at the same time will execute a note in the amount of his loan and will give as security a first mortgage on his crop to be produced in 1932. Application blanks and other necessary forms will be sent, as soon as they can be printed, to count seed loan advisory committees to be set up in each county. These committees will make recommendation to the Secretary of Agriculture with reference to the individual applicant. On completion of the county committee certificate on the back of the application, all papers in connection with the loan will be sent to one of the several field offices to be established by the Secretary for the convenient handling of applications.

Location of Offices

The offices for the making of crop production loans recently authorized by Congress will be in Washington, Minneapolis, St. Louis, Memphis, Dallas, Salt Lake City, Spokane, and Grand Forks, North Dakota. The offices in Washington, St. Louis, Memphis and Grand Forks are already functioning, and made loans in 1931. The offices in Minneapolis, Dallas, established within the next few days.

The Washington office will receive applications for loans from farmers in Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, New York, New Jersey, Michigan, Ohio, Maryland, Delaware, West Virginia, Virginia, North Carolina, South Carolina, Georgia and Florida.

The office in Minneapolis will make loans in Wisconsin, Minnesota, Iowa, South Dakota and Nebraska. The office in Grand Forks will handle applications from North Dakota and Montana where the drought of 1931 was especially severe and from which States, it is expected, many applications will be received.

The St. Louis office will operate in Indiana, Illinois, Kentucky, Missouri, Kansas and Oklahoma; and the Dallas office in Texas, New Mexico and Arizzona. The Memphis office will serve Tennessee, Arkansas, Alabama, Mississippi and Louisiana, the same territory as in 1931. Loans in Colorado, Wyoming, Utah, southern Idaho, Nevada and California will be handled from Salt Lake City; and those in northern Idaho, Washington and Oregon from Spokane.

HOME ORCHARDS IN CROTALARIA PROVING FINE FOR TRUCK CROP LANDS

Gainesville, Fla. — Crotalaria is proving to be a promising cover crop for truck farms, says H. G. Clayton, district extension agent. Last year 30 Manatee County truck growers carried crotalaria demonstrations with the county agent. Where the vegetables followed crotalaria, the growers reported yields from 10 to 50 percent larger than were obtained from near-by check plots.

The Florida Experiment Station recommends spraying now with lead arsenate to control the curculio in peaches and plums.

IMPRESSIONS

By the Impressionist

Pausing in Haines City for a brief chat with Lisle W. Smith, the well known banker and citrus grower there, and he told of the impression he recently had gathered concerning tangerine production. He had driven up through the Vineland-Sand Lake section of Orange county, and gotten the notion that five out of six citrus trees were producing tangerines. Then over through Lake county, and more tangerines. Then a swing across northward, and still more tangerine acreage. Arrived back in Haines City he personally escorted two negroes with a cross-cut saw into the block of tangerine trees in the midst of his own valencia grove. Net result; a solid planting of valencias there now.

The Florida Ridge Groves Corporation, headed by J. D. Sigsbee well known Orlando real estate and financial figure, though only a few months old has acquired long term leases upon something more than seven hundred acres of citrus properties, and is still leasing more. Jess Sigsbee assures us his company has no connection with any marketing agency or organization, but is interested in citrus purely from an investment standpoint.

Georgiana in Brevard county soon will be able to boast a small grove of lime trees which has been set out upon the Bain and Robinson river front property. Fifty years ago there were a good many lime trees at Georgiana and other places nearby along the Indian River, according to the recollection of older inhabitants, but gradually the trees died out and have not been replaced.

No one would class smudging as it is practiced in citrus groves as a hazardous occupation, yet Donald Hart, prominent grower of Fontana, California, recently lost his life as the result of an accident which happened in the course of lighting smudge pots. A small scratch on his face incured while firing became infected and he quickly died of blood poisoning.

Which reminds us that the statistical sharks in California recently have been doing a lot of figuring on smudging costs. There are something like 63,000 acres there under heater protection. When all are lit up, as has been the case on numerous occasions this winter, it is figured the cost to the California industry approximates $75,000 per hour. That is burning up money pretty fast.

A single night's firing this past winter is figured to have cost almost $300,000; and one single week's battle against Jack Frost is said to have cost a million dollars. Would that be called a cool million?

And if that rates as humor, we'd say it was not so hot.

The most pessimistic figures we have seen on this matter of smudging expense this past winter for the Pacific Slope citrus men, is that the total costs will run to maybe fifty dollars per car of fruit shipped.

Major Winfield Scott McClelland, the well known Eustis figure, is pretty well the dean of the active Florida citrus men these days. Recently he passed his eighty-fifth birthday. Not only does he continue active after more than fifty years as a citrus grower but his handwriting is perfect copper-plate. Never, at any age, were we able to write anything which remotely resembled the beautfiul handwriting in a note received from the Major recently.

Alex E. Steuart, well known to Tampans, has been chosen to fill the newly created job of comptroller of the Florida Citrus Exchange. Alex will have to do with everything connected with finances in the Exchange organization. We weren't consulted about his selection but we approve. He is a good man for the place. Mention is made of the fact that he occupied a similar position with the City of Tampa. We will add that for many years previous he did an awfully good job of the same sort for Bill Brorein's Peninsular Telephone Co. We knew him when—.

Alex is no relation either of E. C. Stuart of Bartow, nor of C. E. Stewart of DeLand. Note the spelling S-t-e-u-a-r-t. That extra "e" shows his Scotch origin. It ought not to be there but his ancestors couldn't bring themselves to throw it away. And, is he Scotch? Well, as compared with Billy Edwards and Jim Morton, Alex might be called a sort of unexpurgated edition of a Scotchman.

Hon. J. J. Parrish, the w. k. East Coast shipper opines publicly that the recent freight rate reductions will save the growers a million dollars, and E. D. Dow, traffic manager of the Exchange confirms that statement. Now if it were not for our well known modesty, we'd pipe right up and say: "Well, a half-million dollars anyway."

In course of the industry's intensive effort this season to save every possible penny, water transportation has been utilized to an extent hitherto unknown. The resulting savings to the growers have been considerable. At the same time the congestion of fruit in eastern seaboard markets in good part was the result of this practice. Rather a case of hanged if you do, hanged if you don't.

Far less grapefruit has been canned this season than last; but the real wonder is that the canners have put up as much as they have. Our information is that the canners have just about been swapping dollars at the prevailing low prices for the canned product.

Richard Whitney, president of the New York Stock Exchange and international financier, putting new and good money into the Florida citrus industry, even in the supply end, ought to be an inspiration to Floridians. He is one of the livest financial wires in our country today, and certainly has no reputation for throwing money away.

In his operations for producing peat humus from the Lake Apopka

(Continued on page 14.)

CITRUS COMMENTS

—BY—

Charles D. Kime, Orlando, Florida

This department is devoted to furthering horticultural interests of Florida. Letters of inquiry, discussion or criticism will be welcomed

Bloom Setting

"Off with the old and on with the new" applies with startling importance to the growing of citrus fruits. About six months too late, a great many growers (at least 80% too many) are just wondering what they can do to bring out a bloom. The natural and obvious reply is "you can't do anything if it isn't there to bring out", which reply means a good deal and takes some explaining.

The most important thing that can be said about bloom setting under our present knowledge is, begin planning for a crop at least six to eight months before the bloom is expected that will produce that crop. If there is a heavy crop on the trees from a previous bloom the problem is not impossible, it is simply more complicated. Since it is too late to plan that far ahead at this date, March, the things that can be done just now are all that matters.

The steps leading up to a good set of bloom all dovetail in with sound grove practice, together with a knowledge of what makes a tree bloom. Good grove practice is finally assuming a rather definite form and can be rather easily defined as the use of good judgment and common sense. If that happy condition would always produce a bloom our troubles would be just about over and growing fruit would become a problem in mechanics—a state of affairs I hope we will never reach as then it would no longer be interesting.

Good grove practice we may have, but what causes a tree to form bloom buds in the first place is "something else again"! Technically, we have made some progress, but not enough to make any sweeping statements. A fact here and there seems to be sufficiently well based to prove reliable in field practice so for the present at least we have to fall back on many years of field experience. Bringing the bloom out and getting it to set a good crop of fruit is easy in comparison with our persuading a tree to form bloom-bearing wood in the first place.

Having come this far into a new crop season and done no little to help the tree work up a condition where it can form a bloom, there is nothing left but to stimulate and bring out what we have. Unless old man Weather steps in and assumes full charge for a time by not allowing it to rain. That is, if it doesn't rain and a citrus tree reaches a decidedly wilted condition and holds it for a time, it is very likely to bloom when it does start to grow again, unless it dies from the effect of severe drying which last rarely happens. In fact, I do not know of a case of a tree in reasonably good condition dying from the effect of dry weather, so apparently, the biggest help we can have just now toward bloom formation within the tree is dry weather. This would, of course, mean a late bloom, but it would make good fruit the same as an earlier bloom if it comes in sufficient quantity. The danger of drying is not so much in the initial drying that may occur, but comes from uneven or intermittent wet and dry weather. If, for example, it rains today and thereby brings out a growth and then subsequently dries out seriously, some real damage occurs. When, under When, under these conditions, a tree is not in condition to stand a great deal of adverse weather because of food shortage (lack of adequate fertilizing) further serious damage may easily result. After a bloom is once out serious drying will often cause it to drop heavily and may actually account for the whole crop.

During every dry spring we find groves coming through in good shape and others coming through in a terribly run down state. I do not believe it is any exaggeration to make the flat statement that nearly 100% of the groves would get through dry weather in good shape provided their treatment during the previous fall and winter had enabled them to store sufficient food material to withstand adverse conditions. The exceptions to this would, in practically every case, tie in with a heavy crop held late and large trees occupying a high percentage of the total land area.

A bloom once started after it has reached the bud stage (i. e. the white of the petals showing) must go through to opening, form its pollen, receive pollen either from the anthers within the bloom itself or from some other bloom on the same or adjacent trees, for fertilizing the pistol and the small fruit must develop to the size of a nickel at least before the danger from severe droppage is past. At any time during that period seriously dry weather will cause phenominal loss of newly set fruits. Conversely good moisture conditions will enable a tree to hold a good crop and size it up rather quickly beyond the danger point.

If then, we find a good bloom starting on a grove just now, keep the grove well watered and do not let it dry out at any time. If on the other hand no bloom is in evidence and there is any reason to believe that none is going to show even when growth starts, why under those conditions "let her wilt".

Deliberately letting a grove wilt comes within the same category as many other grove procedures. Each grove must be treated as a distinct and separate individual. Present condition of the grove, the crop it is carrying (if any), the past feeding, the soil and the variety of fruit are all important and deciding factors.

Fertilizing during dry weather is just as necessary as during normal or wet weather. Why wait until the weather breaks to feed a grove if it needs fertilizing? It doesn't pay to wait. It would pay to use fertilizer materials that are not readily lost through evaporation, but otherwise than that, it is much better and safer to let the tree be its own judge as to when to feed. As occasion arises we can stimulate that judgment. Dry weather cuts the feeding rate, but will not eliminate it entirely.

When moisture conditions are not a factor and a bloom is assured the earlier a tree blooms the earlier the fruit will ripen. So forcing out the spring growth would be the thing to do. If there is no occasion to use a balancing formula, spring growth can

(Continued on page 14.)

California May Now Ship Citrus Fruit Into Florida

(As furnished to the Associated Press)

Tallahassee, March 15.—A recent amendment by the State Plant Board to its rules has made possible the shipment of California lemons and oranges into Florida. The Board at its regular meeting held here today issued instructions to the Plant Commissioner as to the conditions under which such shipments may be made.

In commenting on the Board's action, Dr. Wilmon Newell, Plant Commissioner, made the following statement:

"The action of the Board in providing for the admission of California citrus fruits into Florida is in line with the Board's progressive policy. For many years California citrus has been forbidden entry into Florida on account of the fear of introducing brown rot, a disease of citrus fruits prevalent in California during certain seasons.

"However, in view of marked progress during recent years in controlling the disease and the marked improvement in sanitary methods of handling the crop now in vogue in most California packing houses, the Board feels that citrus fruit from that state may now be safely admitted to Florida under certain safeguards.

"Free and unrestricted shipment of California citrus fruit will not be allowed, but permits will be issued for carlot shipments direct to Florida points from California packing houses meeting the prescribed requirements. All such shipments will be inspected and packed under the direction of, and each box certified by, the California State Department of Agriculture.

"Under this arrangement shipments of lemons from California to Florida will be authorized throughout the entire year but shipments of oranges will be authorized only between May 1 and October 1 of each year."

Special Information for Commission Merchants and Others in re Shipments of California Citrus Fruit Under Permit

The following special information is supplied for the benefit of prospective Florida handlers of California citrus fruits:

1. Lemons may be shipped throughout the year.

2. Orange shipments may be made during the period from May 1 to October 1.

3. Shipments must be carlots. Both oranges and lemons may be included in one car. Several Florida dealers may pool their orders to make up a solid car.

4. Each shipment must be accompanied by a permit attached to waybill and each box of fruit must have a sticker or stamp idenifying it as part of a permitted shipment.

5. Permits will be secured by the shipper.

6. Permits from the State Plant Board of Florida will be issued thru the California State Department of Agriculture, which organization will also provide the necessary inspection and supervision at point of origin.

7. Florida dealers need not concern themselves about details in connection with securing permits. Requests for issuance of permits will be handled entirely at point of origin need merely place his order thru one of shipment. The Florida merchant of the large California distributors which will, in turn, arrange for shipment thru an approved, certified packing house under permit.

WILMON NEWELL,
Plant Commissioner.

IMPRESSIONS

(Continued from page 11.)

marshes he has put nearly one and one-half millions of dollars to work. A new machine for drying this product is being purchased now at a cost in excess of fifty thousand dollars.

And he tops that by buying outright J. G. Grossenbacher's old Florida Insecticide Co. at Apopka, refinancing it, and turning it over to W. B. (Bill) Goding to run, upon a basis which assures its permanence and progresive participation in citrus affairs.

Herr Doktor Parentheses C. W. (Joe) C. W. Lyons did NOT show up for the Orlando fair, and thus furnished an out for Sol Wittenstein, who did not buy that meal. That is up to yet; but we are still living in hopes, and meantime continuing our reducing diet.

CITRUS COMMENTS

(Continued from page 13.)

be caused by applying quickly available nitrogen bearing fertilizers, nitrate of soda, nitrate of lime, sulphate of ammonia being the ones most generally recommended for this purpose. Any of these and other materials as well that are quickly and easily available are effective as growth stimulators. After fertilizing, or before if desired, further stimulation can be secured through cultivation.

This present season being so dry necessitates irrigation if desirable growth conditions are to be maintained. This is especially true in all closely crowded groves. Watering would be essential to the forcing set-up under all conditions excepting the one of very unusual wet-weather. The action of nitrogen feeding would be to stimulate growth of bloom buds if they are present or of leaf shoots if bloom buds cannot be found. If bloom is present, an abundance of water causes the formaiton of more virile pollen, a stronger cross-pollinization and a firmer set of the young fruit. Water also improves the fruit holding capacity of the tree. The danger of too much water seems to lie only in the risk that is run in overstimulation from nitrogen sources when unbalanced with sufficient buffer materials.

BOOKLET BOOSTS FLORIDA FRUIT AND VEGETABLES

Florida Fruits and Vegetables in the Family Menu is the title of a very handsome bookleet issued from the office of Nathan Mayo, Florida Commissioner of Agriculture at Tallahassee. It has been written by Mary A. Stennis, consultant nutritionist.

With numerous illustrations in natural colors it gives a valuable index to Florida fruits and vegetables, particularly citrus fruits. In addition to worth while nutritional facts there are numbers of recipes for the utilization of these Florida products upon the family table.

This handsome booklet is one which many housewives will wish to keep, along with their other recipes.

BLUE GOOSE NEWS

Monthly News of American Fruit Growers Inc. *Edited by The Growers Service Department*

SUBMARINE NAUTILUS HAD BLUE GOOSE ORANGES

A recent report upon sixteen boxes of Blue Goose Florida Valencia oranges shipped by L. L. Chandler from Dade County specifically for use upon the Submarine Nautilus, attempting under seas explorations in the Arctic Ocean under command of Sir Hubert Wilkins, indicate their exceptional carrying qualities.

The oranges were shipped to reach the Nautilus at Spitzbergen, Norway, its final base away up inside the Arctic Circle. Not only did they reach Spitzbergen in first class condition, but they stood stowage well, and the report establishes the fact that they were still in good condition when circumstances forced the abandonment of the expedition.

These oranges were included in the supplies of the Nautilus for the especial purpose of guarding against scurvy, long the dread of arctic explorers.

Limes used by the British navy for generations to be included in rations as an offset to scurvy are responsible for the nickname of "limeys" which long has followed British shipping. The distinguished British explorer, however, was in a position to furnish his men an addition to their diet as delightful as it was an effective preventive of scurvy. And real Blue Goose Florida oranges away up inside the Arctic Circle are something to be proud of, too.

BLOOM IS VERY LATE IN MANATEE COUNTY

The first of the month found Manatee county growers much worried by the fact that no bloom was showing up on citrus trees, even in irrigated groves, according to Ervin Sprinstead of the American Fruit Growers Inc. organization at Palmetto.

Normally Manatee county grapefruit is among the earliest in the state, which in part accounts for the anxiety of the growers there concerning the absence of bloom at the accustomed time.

E. W. RECK JOINS AFG FLORIDA ORGANIZATION

E. W. Reck, Avon Park, well known citrus grower and business man recently joined the forces of the Florida Division of the American Fruit Growers Inc.

Long prominent in citrus and civic affairs of the Ridge section, Mr. Reck is known over the state for his interested work on behalf of the growers, and as a member of growers organizations.

Mr. Reck will make his headquarters in the Orlando offices, and will be in contact with AFG citrus operations over the state.

PERSIAN LIMES GET CALL IN DADE COUNTY

Temple oranges and Persian limes have brought the highest prices of any commodities shipped from Dade County this season, reports L. L. Chandler of Goulds, in charge of Dade County operations for the American Fruit Growers Inc.

Persian limes, he says, are now being taken freely by the consuming public over the United States and, in his opinion, promise to be a very serious competitor of California and Sicily lemons. They have averaged from four to ten dollars per box all this season.

Persian limes are not shipped from Dade County in standard citrus boxes. Instead they are placed in standard tomato or peach carriers with center head, and average from two to three hundred fruit per box.

Quite a number of new groves of Persian limes are projected to be planted in Dade County this coming summer, Mr. Chandler adds.

Up to the first of March early grapefruit bloom in Dade County was disappointing to the growers, according to Mr. Chandler. At that date it was estimated the grapefruit bloom was not more than fifty per cent of normal, and coming quite slowly.

MARKET STRENGTHENS OUTLOOK IMPROVING

The steady upward climb in citrus marketing prospects continues. As this is written the available supply of Florida mid-season oranges is rapidly diminishing. Probably by the 15th it will be just about cleaned up. This leaves the way open for Valencias, with excellent prospects of Valencia prices on the whole being satisfactory to the growers.

As of March I, California was reported as having about 11,000 cars of navels and 3,000 cars of miscellaneous oranges left. It was estimated that this will require the movement of approximately two hundred cars daily from there over the next few weeks, or just about the same movement which California sent forward last year at the same time. California navels have been running heavily to large sizes.

The first movement of California Valencias, from Tulare county, is anticipated to begin along about the first of April, and reports are that these will run to somewhat small sizes.

Florida Valencias, when they begin to move in volume, promise to yield a good percentage of 150s and 176s. The prospects are that 216s to 250s will command a market premium. Florida Valencias will vary in size according to producing territories.

Florida grapefruit has been dropping from the trees rapidly. The total grapefruit movement undoubtedly will run much below the estimated yield. This fact together with an increasingly broader distribution of grapefruit makes prospects considerably brighter for the remaining movement.

The federal quarantine imposed upon Texas on March 5 found about 700 cars of grapefruit there awaiting shipment. The processing requirement imposed on shipments to the West and South will probably keep the movement of Texas grapefruit into those territories to a very

(Continued one page 2.)

Adv.

BLUE GOOSE
NEWS
OF INTEREST to the citrus growers of Florida, each month, contained in four pages of paid advertising from the
AMERICAN FRUIT GROWERS INC.
Florida Division
Sixth Floor, State Bank Bldg.
ORLANDO, FLORIDA

NOT NORMAL

This has not been a normal citrus shipping season for Florida any more than it has been a normal period for other business.

Many unusual factors have obtruded, and have served to hamper operations and to create unexpected difficulties.

Our Florida citrus industry, of course, must keep pace with the times. Nothing can stand still and survive. Yet we must not allow ourselves to become stampeded by the temporary effects of the unusual combination of recent events, and so cut and slash our methods and operations that the pattern upon which our success has been built, a success which has continued over a very long period, will be lost to us when there is some resumption of normalcy over this great country of ours.

It is a time for courageous and constructive thinking.

It is emphatically not a time for hasty words and hastier conclusions.

Was it not J. Pierpont Morgan, the elder, who handed down to us the dictum that "Any man who becomes and stays a bear on the United States of America will go broke?"

MARKET STRENGTHENS OUTLOOK IMPROVING

(Continued from page 1.)

low figure. The outlook for late grapefruit from Florida is much improved, and the wind-up of grapefruit shipping should witness really satisfactory returns.

Adv.

DOGS JUST CUR-R-RAZY ABOUT EATING ORANGES

A recent issue of the Produce News, New York, carried the following despatch from Fontana, California:

"Another outlet for oranges is suggested by the experience of Chas. F. Shaw, orange grower of Fontana. Some time ago he noticed that his two bird dogs always followed him thru the orchard with hungry looks on their faces. Finally he peeled an orange and offered it to one of the dogs. The dog ate it with relish. Now oranges are a regular part of the diet of Mr. Shaw's hunters. As a result they have slicker hair, better health, and are always rarin' to go."

To this the Produce News appended the following:

"Editor's Note: The news editor of the Produce News has a dog which is also an orange fancier. His dog is a Siberian Samoyede, but, despite its Nordic ancestry is crazy about the semi-tropical fruit. He prefers tangerines from Florida."

Now what about Florida dogs?

Address the account of your experiences to True Experience Dog Diet Editor, in care Blue Goose News, sixth floor State Bank Building, Orlando.

BYRD IS OPPOSED TO U. S. BUSINESS POLICY

It is bad business to raise tariff duties until the best national customers are alienated and export trade is destroyed according to Harry F. Byrd president of the Virginia State Horticultural Society, brother of Admiral Richard Byrd, and himself former governor of Virginia. He is one of the largest Virginia apple growers and exporters with 29 orchards under cultivation.

He predicted that the return of good times will bring to the southern states an undreamed-of prosperity. However, he declared, America cannot be a self-contained nation and retain her prosperity. "Whatever may be our individual opinions about the tariff walls we have built around America," he said, "no one can deny that we have made the tariff higher and higher. It is one thing to impose tariff to protect living standards here, but it is bad business to raise the duties until we alienate our best national customers, destroy our export trade, and encourage American industry to migrate abroad and employ foreign labor."

Of the Farm Board he said it "failed as everyone fails who attempts to accomplish something in defiant contradiction of the inevitable operation of economic laws. There is no patent medicine cure for ills like these . . . We must reduce overproduction. If we reduce production we reduce income. The profitable way is to absorb overproduction . . . in larger foreign consumption."

"But there are some things for our relief we can do promptly," he said. "We can reduce reasonably the extension of the unnecessary functions of Government . . . We might be permitted honestly to exercise such business judgement as we think we have without being required to pay a lawyer to explain to us a long list of legislative 'dont's.' "

VALENCIAS START WELL IN PINELLAS COUNTY

The earliest movement of Valencia oranges from Pinellas County brought very satisfactory prices, and the growers there are anticipating a satisfactory Valencia season, according to J. W. Parker, manager of the Walsingham packing house of the American Fruit Growers Inc., a short distance from Largo.

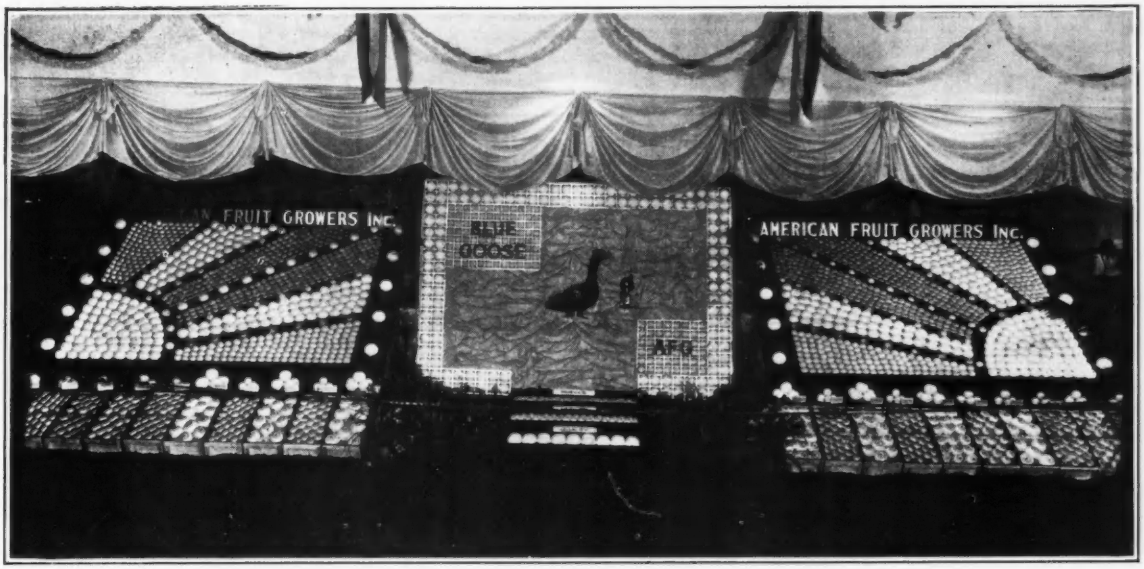
He estimates the Pinellas Valencia crop as just about a normal one, or considerably short of last season's production there. Sizes are running rather large. The movement should be going forward well by the time this appears in print.

Early grapefruit in that section has been cleaned up, Mr. Parker says, and a great deal of the supply of Marsh seedless grapefruit also has gone forward, so that grapefruit shipments from there will be light after the first week in March.

MASCOTTE GROVES ARE WELL CLEANED UP

The end of February found citrus groves in the Mascotte district of Lake county well cleaned of all early and mid-season oranges and grapefruit, according to O. F. May, packing house manager of the American Fruit Growers Inc. at that point.

Rains general over that district during the preceding ten days aided the trees in putting out new growth and some bloom, in which Valencias led as is usual. So marked were the signs of early Spring that Valencias on rough lemon root already were beginning to show a greenish tinge at the stem ends.



Blue Goose Exhibit at Centra l Florida Exposition, Orlando

DIET EXPERTS ADVISE ORANGE JUICE BE USED

That the nationwide period of economic stress has not caused the value of orange juice in the diet to be forgotten by nutritional authorities is illustrated in the following letter:

"Commonwealth of Massachusetts
Department of
Public Health"
"State House, Boston"

"February 2, 1932"

"American Fruit Growers Inc.
Orlando, Fla.
Gentlemen:"

"This winter as usual we are advising people to get as much orange juice and as many oranges as possible. Of course, this year there is the great economic question.

"Could you tell us which size orange is the most economical this year for using whole, and which size is the most economical when using for the juice?

"We would value your advice very much.

"Sincerely yours,"
(Signed) Mary Spalding
"Consultant in Nutrtion"

"COLORING EXPERT" WILL ACCEPT JOB OR POSITION

Now you tell one. But wait a moment, and let J. E. Powell, manager of the Avon Park packing house of the American Fruit Growers Inc. tell this one.

He was an old gentleman, evidently a real gentleman. Carried a cane and other accessories, but circumstances had gone against him. He needed a position, and failing that would be sincerely grateful for a job. He was in dead earnest, and would be glad to be considered for a night-watchman's job; could present high recommendations as to character and qualifications.

It was explained to him that it was necessary for the night-watchman to understand the process of coloring fruit, as it is part of the watchman's duties. Had the applicant ever had any experience in the pre-coloring process as applied to citrus fruits?

"No. But I am sure I can take care of it very satisfactorily. You see by reason of many years practical experience as a landscape artist I am thoroughly familiar with pigments and colors, and that part of the work should cause me no difficulty."

GRAPEFRUIT NEARLY GONE AT VALRICO

Grapefruit in the Valrico section of Hillsborough county was pretty well cleaned out, both early and late varieties, by the first of this month, according to John T. Helms Jr. of Valrico Growers Inc.

He reports a fairly good crop of Valencias thereabout, nice, clean fruit, but running toward smaller sizes, which stand a chance to grow, however, with the advancement of the season since the long drouth has been broken in that section.

STRAWBERRY GROWERS SELECT A F G SERVICE

From Sanford, Mississippi, comes the news that the Covington County Strawberry Growers Cooperative Association has elected to sell its products in the markets through the selling service of the American Fruit Growers Inc.

The association controls practically one hundred per cent of the strawberry producing acreage in that section, which is noted for the quality of its berries. They come into the markets in between the Florida and the Missouri production.

EAST COAST TOMATOES FIND GOOD MARKETS

As a combined result of the open winter to the time this is written, the reduced acreage in Florida winter tomatoes, the early cleaning up of the Cuban crop, and the marked curtailment in shipments from Mexico, Florida winter tomatoes have been obtaining an excellent reception in the markets.

The East Coast tomato operations of the American Fruit Growers Inc. this season have been a source of great satisfaction to this organization, and the growers there are freely expressing their gratification at the uniformly satisfactory nature of sales in the markets.

The tomatoes have been of good quality; and the trade in all sections of the country has been taking them readily at prices most satisfactory to the growers.

Adv.

They Hold The Key To Consumer Preference

Those growers whose products are distinguished by the Blue Goose trademark:

They hold the key to consumer preference.

They have reason to know that there is a wealth of significance in those words — Blue Goose.

In unlocking the jealously guarded door to the preferment of the consuming public, those words likewise open the way to ready acceptance by the wholesale and retail trade.

Blue Goose stands for something.

Something which the public has learned to want, and which the trade knows the public wants.

Consumer

Preference

American Fruit Growers Inc.

Florida Division
Orlando, Florida

Adv.

A BROUGHT BACK CITRUS GROVE

(Continued from page 7.)

the part of the visited property which had received no attention on account of their wretched condition. It had the appearance of a beautiful park in comparison with our grove.

After considerable talk with horticulturists and the owners of prosperous neighboring groves, and visiting a number of profitable and well kept groves, the substance of all of the information I was able to secure, was that the tops of the trees should lie close to the ground and the top centers should be somewhat open and that the lower circle of large limbs forming the top should contain about five limbs in each of two circles, and as evenly spaced around the trunk of the tree as they could be located.

Near the house there was a wide spreading tree strictly of the jungle type. It contained two circles of large limbs each. One about a foot above the other. I decided to try my luck and skill at pruning it. The top of the tree with all of its remaining branches was sawed off above the top circle of limbs. All of the fine brush and most of the smaller limbs were removed. Not over eight or ten of the smaller limbs were left on each large limb. While the result presented much the appearance of a wind wrecked umbrella, I concluded the result of my work was what each tree in the grove needed.

That afternoon I went to Fallbrook and employed professional pruners. The following morning they appeared prepared for work. I showed them the tree I had worked on and informed them I wanted all of the citrus trees pruned in a similar manner. After considerable laughing and joking, learning I was in earnest, both said that they would not ruin their reputations as orchardists, by doing that sort of work. They suggested I first cut out the overgrown suckers and sell them for fishing ponles, and that it would be cheaper and as well done if I would buy a band of goats to do the work. One of the men did, though, work that day as he was on the ground. He and I began by each taking a row of trees. At quitting time we had completed eight rows of trees. I continued the work alone and completed it within a few days short of a month. After the brush had been hauled off, I will confess in looking over the section of the trees pruned it called to my mind a section of the middle west in which I was raised, after what was said to have been the most severe hail storm ever known in that often hail visited locality had passed through a lightly timbered section literally stripping the trees of their foliage and lesser limbs.

I secured help to prune the walnut, orange and grapefruit trees; they did not need more than what was required to remove the broken limbs and fine brush.

The next strenuous undertaking was disposing of the squirrels and pocket gophers which had been attracted to and bred on the premises by the walnuts and excellent root feeding. A few days' efforts convinced me I would not live long enough to trap them off with my string of eight traps. I resolved to try poisoning. I cut oranges in halves and lightly sprinkled strychnine over the cut sides for the squirrels and filled raisins with arsenic, afterwards, dipping them in syrup which after drying I placed in their runs. The first day I put out two five gallon cans of the poisoned oranges

(Continued on page 22.)

Soon

AN ANNOUNCEMENT of IMPORTANCE CONCERNING

NATURE'S FINEST FERTILIZER

THE Nitrate Agencies Company believes that never before has there been a greater need for organic fertilizers for Summer Application to all groves in Florida.

Genuine Peruvian Guano can fill this need as can no other fertilizer material . . . not only can Genuine Peruvian Guano be bought as such at a very reasonable cost, but it will be included even more liberally in NACO Brands than heretofore.

NITRATE AGENCIES COMPANY
1401-1407 LYNCH BUILDING
JACKSONVILLE, FLORIDA

An Apology to Mr. R. S. Caudle of Lakeland .
Second Prize Winner in the NACO Letter Contest

At Mr. Caudle's request, his letter was retyped before being used in the Nitrate Agencies Company current advertising. The typist made Mr. Caudle state "This crop of about 7,000 boxes brought me approximately $13,000,000 which goes to show that the quality was of the very best." We regret that Mr. Caudle did not receive this very large sum of money, but the $13,000.00 he did receive is evidence of the profit producing value of NACO Fertilizers.

NEW CITRUS HYBRIDS

(CSontinued from page 8.)

seed with striking regularity. Hundreds of seedlings have been grown without revealing vegetative diversity and in a group of 42 seedlings brought to fruiting at Little River, Fla., all showed remarkable adherence to type in growth and fruit characteristics. This uniformity is due to the fact that this hybrid is sterile in the sense that the seed is developed from the tissues of the mother plant and consequently reproduces the variety without change.

In vegetative propagation the Sampson, as well as most other tangelo varieties, differs from the parental fruits. Cuttings of the tangerine and the grapefruit may be rooted, but with considerable difficulty, only a small percentage striking root even when given favorable conditions. Leafy twig cuttings of the tangelo, however, may be rooted without difficulty and with only moderate loss if care is taken to maintain proper condition of humidity and temperature, such as is afforded by a humid greenhouse chamber with bottom heat or by the solar propagation of citrus cuttings. The greater readiness with which citrus hybrids may be rooted from cuttings as compared with the parental varieties has already been noted in the case of the Thomasville citrangequat.

As the publications in which the original tangelos (Sampson and Thornton) were first described have been out of print for a long time, a description of these varieties in the light of recent experience is here given.

Sampson Tangelo

(C. P. B. (3) 1316; pl 1)

Technical description.—Fruit the size of a medium-large orange, slightly flattened at blossom end with characteristic raised nipple at stem end, 2¾ to 3 inches in diameter; color, orange yellow (Ridgway (4), orange buff to capucine yellow); rind very thin, smooth, and glossy, fairly free peeling when the fruit is fully mature, but not kid glove in character; oil cells numerous, conspicuous, translucent, practically flush with surface; segments 9 to 11, separating easily, membranes thin and tender small amount of rag, small open core; pulp tender, extremely juicy with characteristic aroma, a sprightly and characteristic of sweetness and acidity when fully ripe; color of pulp salmon-orange (Ridgway, light salmon orange to salmon orange), unique among citrus fruits; seeds fairly numerous, 15 to 20, of medium size, greenish in cross section like tangerine seed. Tree evergreen, fairly vigorous and productive, about as tender as grapefruit; leaves unifoliate, small to medium size, 2 to 3 inches in length rounded oval, boat shaped with constriction along the midrib giving a characteristic appearance; petiole narrowly winged or wingless. The season of maturity is February to April.

When grown in the coastal regions of California this tangelo is generally much reduced in size and very acid. It is not commonly grown commercially outside of Florida.

Thornton Tangelo

(C. P. B. 1282 pl. 1)

The original records of the group of hybrids giving rise to the Thornton tangelo were lost, so that the pollen parent is not definitely known. As many of the sister hybrids show unmistakable tangerine characteristics, however it is safe to say that this fruit is a tangelo with grapefruit the known seed parent. For some years after it first fruited its original hybrid number was also unknown, but identical fruit under C. P. B. 1282 has been produced for several years at Little River, Mount Dora, and Eustis, Fla., leaving little doubt as to its proper place in the series of hybrids made by the senior writer in 1899.

Technical description.—Fruit the size of a small grapefruit, 3¼ to 3¾ inches in transverse diameter by 2⅞ to 3¼ inches in height, flattened at blossom end and tapering slightly toward stem end, calyx set in slight depression, having shallow radiating grooves in the rind; color similar to common orange (Ridgway, orange buff to deep chrome); rind soft and think (three-sixteenths to one-fourth inch), somewhat wrinkled and pebbly, the roughness in part due to deeply indented large and numerous oil cells, free peeling, of kid-glove character and puffy when ripe; segments 10 to 12, separating easily and having considerable adhering membrane or rag, open core with pithy central column; pulp very soft and melting, juicy, translucent, of mild favor, sweet, somewhat lacking in acidity, especially when fully ripe, slight aroma; color of pulp, pale orange (Ridway, orange buff to deep chrome) seeds varying from 10 to 25 per fruit, long and slender, resembling orange seeds but greenish in cross section. Tree, evergreen, thrifty and productive, about as tender as grapefruit; leave unifoliate, rather large and long pointed, resembling common sweet orange rather than either parent.

The season of this fruit is from December to March.

The Thornton tangelo grown in the intensely hot, irrigated Coachella Valley at the United States Experiment Date Garden at Indio, Calif., has shown itself to be very well adapted to this severe climate. Although the fruit is smaller than that grown in Florida, it is of excellent quality.

Minneola Tangelo

(C. P. B. 52018—Q; pl. 4)

The Minneola tangelo is of the same parentage as the Lake and Seminole tangelos, but it is still later in maturity, being at its best from February to April. Its high color, good shipping quality, and few seeds especially recommend this new fruit for consideration and trial. It has been given the Seminole Indian name of Mineola (Min-ne-o'la) after the town of that name in Lake County, Fla.

Technical description. — Fruit the size and shape of a medium-large flattened orange, average fruit 3¼ inches in transverse diameter by 3 inches in vertical diameter; calyx small, its area often slightly raised but not forming a distinct nipple (as in the Sampson); color when fully ripe a deep reddish orange (Ridgway, orange chrome to flame scarlet), fairly smooth, slightly roughened by oil-cell indentations; rind thin to medium (one-eighth to three-sixteenths inch), firm, not free peeling; segments 10 to 12 with rather tough segment walls and small open core; seeds few in number, 7 to 12, small and closely grouped in center, greenish in cross section; pulp of orange color (Ridgway, mikado orange), translucent, tender, melting, very juicy, somewhat aromatic, combining desireable sweet-

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ness and acidity, resembling the Sampson tangelo but more mild in flavor. Tree evergreen, vigorous, and productive; leaves unifoliate, rather large, varying from 3½ to 5 inches in length, long pointed, tapering more abruptly at the base, petiole of medium size, narrow to medium size winglets.

The difference in season of this tangelo compared with the Lake and Seminole, the attractive color, good shipping quality, few-seeded character, and excellent flavor recommend this fruit for consideration and trial. It is moderately susceptible to scab, but does not become nearly so badly disfigured as the Sampson when attacked. It shows no tendency to sun scald or drying out, either on the tree or in storage. In shrape, size and color it resembles the Temple orange (the latter probably being a natural hybrid of the tangelo group, but has a smother and tougher rind that is less likely to dry out or suffer injury from handling. It has, however, an entirely different flavor from the Temple orange and fewer seeds.

Yalaha Tangelo

Resembling the Minneola tangelo in a general way, the Yalaha has about the same season of maturity but is not quite so striking a fruit. With its slightly roughened rind it resembles the Thornton, but in character of pulp, especially in acidity, it sugests also the Sampson. The rind character indicates good shipping and keeping qualities, especially for the late market in March and April or even later. It has been given the Seminole Indian name of Yalaha (Ya-la'ha), from the town of that name in Lake County, Fla., where it has fruited for several seasons.

Technical description. — Fruit of shape and size of small grapefruit, 3½ inches in transverse diameter by 2¾ inches in vertical diameter; calyx persistent, angular, set in slight depression with shallow radiating grooves in the rind; blossom end distinctly flattened with slight depression around pistil mark; color shading from orange (Ridgway, orange) at stem end to reddish orange (Ridgway, orange chrome) at blossom end; rind somewhat roughened and pebbly, in part due to large, deeply indented oil cells, of medium thickness (three-sixteenths inch), rather large open core; numerous slender seeds (20 to 25) greenish in cross section; segments 8 to 10; pulp, tender, juicy, with little rag, of pale amber color (Ridgway, capucine bluff), translucent; flavor rather acid until fully ripe, but a good blending of sweetness and acidity when mature. Tree ev-

(Continued on Page Twenty-Four)

Unemployed TREES

POORLY-FED citrus trees work only part time and produce small fruit which is undesirable during big crop years. Some growers blame this low quality on the weather. But the wise citrus producer insures a top-price crop of satisfactory size and quality by keeping his grove well fed and healthy.

Unbalanced, incomplete fertilizer keeps trees working only long enough to bloom and set a crop. Developing, maturing and finishing a crop into first class fruit is a full-time job that requires a complete fertilizer containing plenty of potash.

Size and quality are largely determined long before fruit is heavy enough to turn down on the limb. Fruits, like children, grow faster in early life. This is why it is so important to give your trees a spring application of complete high-potash fertilizer. Well-fed trees work full time!

N. V. POTASH EXPORT MY., Inc., HURT BLDG., ATLANTA, GA.

POTASH PAYS ON ALL CROPS — NV — POTASH EXPORT MY.

POTASH PAYS

A BROUGHT BACK CITRUS GROVE

(Continued from page 19.)

placing them near the squirrel burrows. The day following it looked as tho all of the buzzards in South California had moved in on us. The work was continued for a week or ten days. The surrounding territory was covered for a half a mile on each side of the grove. At the end of the time not a squirrel or gopher mound was to be seen in the covered territory. It was, though, occasionally necessary to follow up the work in a small way to kill members that wandered within the territory.

It was not over a month or six weeks before the buds began to start on the pruned trees and not long before the limbs were well leafed and not much longer before new limb buds started. During the summer portions of the trees were quite badly sun burned. The sun and light killed the scale remaining on the trees.

Confident the work I had done was going to prove all right, I installed an engine house, with a concrete floor and foundation over the well, and installed a gasoline engine of ample power and a double pump system with underground pipe lines, with hydrants to the surface.

The apple, peach and pear trees required considerable cutting back. The grape vines were each cut off even with the ground, with the exception of two stalks to each root. We all began to complain of the cost of our new country home.

The first fall I had the land deeply plowed and a green fertilizing crop sown. The coming spring before it was plowed under twenty tons of poultry droppings were scattered over the land, which with the crop of green fertilizer was plowed under.

By the first of April the trees had made a remarkable growth. They were filled with blossoms. The fragrance of the blossoms filled the air. The trees fairly swarmed with bees. San Diego county is one of our leading apiary counties. One day that spring while busy in the grove we counted the swarms of runaway bees flying over the place. Following the suggestion of one of my neighbors I purchased a hive with its equipments and placed it under a tree near the shed. The next morning before we were up a large swarm of bees had taken possession of it. The swarm with its increase proved to be quite a profitable adjunct to the property.

Each following year I had the land deeply plowed, followed with good cultivation and fertilization, and after the second year regularly irrigated.

We continued on our ownership for five years. We always enjoyed our country home and spent as much of our time on the property as my business would permit. During our ownership a reliable man with a team was employed to care for the land and to do the hauling. The proceeds cleared by the sale of fruit and nuts returned all of our expenditures for improvements and hired labor and netted us a small amount over 5 per cent on the sale price we received for the property which was ten thousand dollars, on which I paid the sales agent five hundred dollars commission.

The pear, apple and peach trees all bore well, but the climate in that locality is not suitable for a good quality of apples and pears; it is not cold and damp enough. The Thompson Seedless grapes we dried into an excellent quality of raisins. The table grapes not used were sold. Our home was constantly supplied with some kind of fruit and walnuts. Among the walnut trees was a beautiful

(Continued on page 26.)

BALANCED CERTAINTIES

The Better Road to larger Profits

Agricultural conditions today have taught many lessons. Growers realize as never before the importance of playing safe. They have learned from careful tests the expense of experimenting—the value of balancing uncertainties against certainties. That's why so many have turned to Armour's BIG CROP Standard Brands of Fertilizer.

Like these growers, you too, will need all the margin you can get between crop costs and net returns during 1932. It will be a quality year. You will want to "know" the kind of fertilizer you use; for when the end of the season comes it's the crop producing value of the fertilizer you use that shows a profit.

Let Armour's BIG CROP Fertilizer go to work for you this year. It starts work immediately and matures an earlier, bigger and better crop. There is a standard demonstrated brand of Armour's BIG CROP Fertilizer for every soil and crop—in formula they are balanced certainties—the better road to larger profits.

Our field representatives will gladly make recommendations that will suit your requirements.

ARMOUR'S BIG CROP FERTILIZERS

ARMOUR FERTILIZER WORKS

JACKSONVILLE, FLORIDA

Nominees Named For Clearing House Board

At Winter Haven last week nominees for directors on the board of the Florida Citrus Growers Clearing House Association were named by the Committee of Fifty.

Twenty-one district nominees and eight nominees from the state at large were presented from among whom will be elected seven district directors and four from the state at large. The election will be held on April 5, balloting by growers-members of the clearing house being done by mail.

With the exception of two members President A. M. Tilden and O. F. Gardner, who withdrew their names, all members of the present board were again placed in nomination. James C. Morton, Auburndale, member of the original committee of 50, and its chairman for two years, was nominated in the state at large group.

Members of the committee, in making their nominations, did so by districts, while the nominations for directors from the state at large were made by the entire membership of the committee jointly.

District Nominees

Following are the nominees and dictricts represented:

District No. 1, Polk county; John D. Clark, Waverly; A. F. Pickard, Lakeland and Max Aldron Babson Park.

District No. 2, Hillsborough and Pinellas counties. T. C. Bottom, Valrica, Harry Jackson, Lutz and J. H. Letton, Valrico.

District No. 3, Pasco, Hernando, Citrus, Sumter and Lake counties: W. O. Percival, Clermont; E. E. Truskett, Mount Dora, and Geogre Westbrok, Clermont.

District No. 4, Marion, Levy, Alachua, Putnam, Volusia, Flagler Seminole and St. Johns counties: E. L. Maltbie, Altamonte Springs; B. J. Nordman, DeLand and E. H. Williams Crescent City.

District No. 5, Orange and Osceola counties: J. M. Bennett, Winter Park, K. N. McPherson, Maitland and M. O. Overstreet, Orlando.

District No. 6, Brevard, Indian River, St. Lucie, Martin, Palm Beach, Broward, Dade, Highlands, Okeechobee and Glades counties: N. F. Enns, Fort Pierce; E. W. Vickers, Sebastian and A. R. Trafford, Cocoa.

District No. 7, Manatee, Sarasota, Hardee, DeSoto, Charlotte and Lee counties: Dr. E. C. Aurin, Fort Ogden; F. G. Janes, Wauchula, and W. G. Masters, Fort Myers.

From State at Large

State at large: J. C. Chase, Winter Park; S. Y. Hart, Sebring; L. P. Kirkland, Auburndale; James C. Morton, Auburndale; E. C. McLean, Palmetto; S. J. Slight, Oralndo; H. A. Ward, Winter Park and R. B. Woolfolk, Orlando.

Ballots carrying the names of the nominees will be mailed the latter part of this month to grower-members of the clearing hous.

Election of the new committee of 50, which like the new board of directors will take office June 1, will be at a series of regional meetings throughout the fruit belt between now and April 5. An election committee recently appointed by the committee of 50 and the board of directors, will work out a program of meeting dates for the regional meeitngs.

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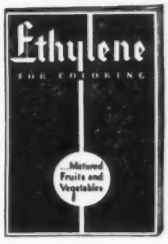

CONTAINS complete information on ETHYLENE—the magic gas which hastens ripening of matured fruits. Learn how to profit with it. Ethylene increases profits, reduces loss, saves time. Write for your copy of "Ethylene for Coloring Matured Fruits and Vegetables" *today*.

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They know that our field experts will advise them honestly and expertly as to the sort of fertilizer required to secure the best results for their particular grove.

They know that this company never sells anyone with the thought in mind that that single sale will conclude our relationship. With us the initial sale is simply the entering wedge to a long and pleasant relationship builded upon a mutual confidence and respect.

If you don't know us as well as you should we will both profit measureably by becoming better acquainted.

West Coast Fertilizer customers raise better fruit.

West Coast Fertilizer Co.

303 Zack Street Tampa, Florida

NEW CITRUS HYBRIDS

(Continued from Page Twenty-One)

ergreen, vigorous and productive; leaves unifoliate, pointed oval with rounded base, resembling sweet-orange leaves, having narrow-winged petioles.

The Yalaha is perhaps the best of the late-maturing tangelos that have thus far fruited. The chief objections to it are the number of seeds and the size of open core. In young trees it is inclined to fruit in clusters, a habit that tends to produce pear-shaped fruits, but which is likely to disappear as the tree attains greater age.

Clement Tangelo

(C. P. B. 49855)

Aside from the tangelos of commercial importance, there are occasionally found among the numerous hybrids fruiting each year novel and interesting fruits which, although of little commercial promise, have a special appeal for the connosiseur because of some particular quality. There is a field for such fruits as luxury products or novelties, which justifies the propagation of such new types at least for the home fruit garden or for the specialist in fruit production.

In a group of crosses between the grapefruit (as the seed parent) and the Clementine tangerine, some interesting fruits have been secured. These crosses are of special interest, as the pollen parent, the Clementine, is reputed by its discoverer, the late L. Trabut, to have originated as a natural hybrid between the Granito, a peculiar strain of the bigarade or sour orange, and the tangerine. It is classed, however, as a tangerine, being of a kid-glove character and developing a high color approaching the Dancy tangerine. The first introduction of the Clementine into the United States was in 1909 through bud wood sent by Doctor Trabut, who was chief of the botanical service of Algeria, to the senior writer, who propagated the variety at Glen St. Mary, Fla. The Clementine is the leadnig variety of the kid-glove group grown in northern Africa and is being planted to some extent in Florida, California, and southern Texas. The crosses with grapefruit in which the Clementine has been used as the pollen parent have resulted in a wide diversity of plants and fruits. These show greater hardiness than the Dancy tangerine crosses, a characteristic which accords with that quality in the Clementine. The fruits as a class are inclined to be loose skinned and rather puffy. One of the best of this group has been selected for propagation and has been named the Clement tangelo, as an indication of its relationship to the Clementine tangerine.

Technical description.—The fruits of this variety are rather variable in shape, from oblong oval to depressed globose, the size of a small grapefruit (3¼ to 3½ inches in diameter); calyx persistent, depressed area around calyx wrinkled and grooved; color grapefruit yellow with slight orange tinge (Ridgway, light orange yellow); rind soft, thick (one-fourth inch), with oil cells numerous, deeply indented, giving characteristic pebbled appearance, with some wrinkling, free peeling, large open core; pulp of peculiar soft jellylike consistency devoid of fiber and easily removed without squirting of juice, of pale amber color (Ridgway, capucine buff), pulp vesicles very small; segments, 10 to 12, irregular in shape and size; seeds long and slender, number variable, usually one seed to a segment, occasional fruits entirely seedless; flavor mild and sweet, low in acidity but not insipid unless overripe; maturing in December and January. Tree evergeen, vigorous, and fairly productive; leaves unifoliate, medium to large in size, 4 to 5½ inches in lenght, shape long-pointed oval with winged petiole, slightly recurved along midrib, resembling the Clementine leaf in this respect but to a less degree.

While this tangelo is not as striking in appearance as the others herein described, the finely wrinkled rind gives it individuality by which it may be recognized, and the "squirtless" character of the pulp, its smooth consistency, and mild flavor will recommend it to many lovers of citrus fruits.

Wekiwa Tangelo

(C. P. B. 47220; pl. 6)

In the course of making a series of back crosses, a pink-fleshed tangelo was secured as a result of using pollen of the Sampson tangelo on a grapefruit. This unique hybrid was described by the writers in a previous paper, and fruiting trees are to be found in a number of citrus collections in Florida, although it is not recommended for commercial planting on a large scale. In the original description no formal name was assigned this fruit, but it has been commonly referred to as the pink tangelo. The name Wekiwa (We-ki'wa) is here given to it, after a famous spring in Orange County, Fla.

In making this back cross it was expected that the resulting hybrids would more nearly resemble the grapefruit, the seed parent. The male parent, however, the Sampson tangelo, proved dominant, the fruit bearing little resemblance to grapefruit but showing ditstinct tangelo character. This is not only true of the fruit itself, but is especially marked in the foliage characters. The small rounded leaves, like the Sampson, are strongly constricted and recurved (boat shaped), giving the tree a peculiar appearance easily recognized. In several similar back crosses the pollen parent (Sampson tangelo) has proved dominant to a marked degree.

Like the Sampson, the Wekiwa tangelo comes true from seed, several seedlings fruiting at Indio, Calif.,

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Lake Nursery Company
Leesburg, Florida

showing no variation from the parental form in fruit or tree characteristics.

Technical description.—Fruit variable in size, but usually of small to medium size, 2¼ to 2¾ inches in diameter, spherical or slightly flattened, occasionally pyriform; color resembling grapefruit (Ridgway, pl. 1, pinard yellow to primuline yellow), often having pink blotches, especially where fruits are in contact; rind thin or of medium thickness (one-eighth to three-sixteenths inch), smooth and glossy, oil cells conspciuous, large, and flush with surface, devoid of bitter principle common in rind of citrus fruits; segments 9 or 10, segment walls and inner rind tinged with color (Ridgway, peach red to Corinthian red) that appears to permeate the translucent pulp vesicles (which, however, are not so colored, but are amber in shade); seeds variable in number, usually averaging one to a segment, some fruits entirely seedless; pulp resembling grapefruit in appearance, with large, translucent vesicles, tender, juicy, very sweet, slightly aromatic, somewhat lacking in acidity but not insipid. Tree evergreen, rather weak grower, fairly productive; leaves small, 2 to 2½ inches long, rounded oval in shape, peculiarly recurved or constricted, giving tree a characteristic appearance.

This fruit reaches maturity by early November but remains in good condition for several months. The pulp loses color, however, as it passes full maturity in late December. This earliness in maturing is in sharp contrast to the usual time of maturity of both parents, the Sampson tangelo being especially late in maturing. It is thus unique both for the pinkish color and for earliness, and has an extreme sweetness greatly relished by some.

More recently a similar back cross (C. P. B. 52014 — A — 10, Bowen grapefruit + Sampson tangelo) has given rise to another pink-fleshed hybrid that is smaller and generally inferior as compared with the Wekiwa tangelo, but resembles it in physical make-up.

Experiments in growing the Wekiwa tangelo in Florida have not encouraged its commercial planting, as it has not proved to be a thrifty tree, and it is usually somewhat dwarfed. A number of trees growing at the United States Experiment Date Garden at Indio, Calif., have not shown any such weakness, and the fruit has proved to be early maturing, holding well under the severe climatic conditions of that region. Despite the handicaps of small size and weak growth in Florida, the fruit is so relished by some people that it will probably be desired for home fruit gradens and for collections of varieties adapted to supplying a private trade.

(Continued next month.)

MUCH DAMAGE FROM WIND

The high winds of March 5 and 6, which visited a large section of the citrus belt, caused much loss of fruit by droppage. This was particularly true of grapefruit. In some sections the loss by droppage was estimated as high as 20 per cent of the crop still remaining on the trees, while in other sections the loss was less pronounced.

As a result of this droppage, it is estimated that probably not more than 5,000 cars of grapefruit remain to be shipped, as against some 13,000 cars at this season a year ago. This shortage is expected to exercise a beneficial influence upon prices which have ruled unreasonably low all thru the present season.

The loss to oranges from the high winds was much less than to grapefruit, although there was a considerable droppage of late Valencias.

MILLION-CITRUS-TREE COUNTY

(Continued from Page Five)

made over a period of from two to five years, so that many trees listed as three years old when the count was started are actually from five to seven years old when the census is completed. No distribution was made in the collection of this data as to properties producing fruit on a commercial scale and those which are not. The primary task of the assistant grove inspectors is to inspect every citrus tree in the state, regardless of whether it is growing in a hundred acre grove or in a back yard, for the presence of major pests or diseases. The tree count is secondary.

That the membership of the "Million Tree County" group is likely to be increased within the next several years is indicated by the number of counties having over five hundred thousand citrus trees as of December 31, 1931. This group includes:

Brevard	964,992	trees
Pinellas	954,032	"
Indian River	728,269	"
Dade	719,274	"
Marion	719,274	"
St. Lucie	693,188	"
Hardee	614,451	"
Manatee	601,842	"
DeSoto	547,728	"

A nursemaid rushed into the presence of her mistress and shrieked: "Oh, my goodness, ma'am, the twins have fallen into the well. What shall we do?"

The mother lit a cigarette and calmly replied: "Go to the library and bring me the last number of 'Modern Motherhood'. There's an article in it on 'How to Bring up Children'."

Spray with "FRIEND"
SPRAYERS—DUSTERS—GUNS—HOSE
"You will always be glad you bought a 'Friend'"
Write for Circulars
"FRIEND" MFG. CO.
East Ave., Gasport, N. Y.

"Black Leaf 40"
Widely recognized as a dependable control for Aphis and Thrips on Citrus Fruits. May be added to other standard spray materials and fungicides.
Kills APHIS and THRIPS

This "double acting" insecticide has been the favorite spray material of successful citrus growers for the past 20 years. It not only kills Aphis and Thrips by direct contact, but also by nicotine fumes. This is an advantage not possessed by any non-poisonous, non-volatile insecticide.
Recommended By Expreriment Stations
"Black Leaf 40" enjoys the endorsement and recommendation of leading growers, Agricultural Colleges and Experiment Stations and editorial writers throughout the country. Being highly concentrated, this reliable insecticide is economical to use as a little goes a long way. Full directions appear on every pacakge. Sold everywhere.
Tobacco By-Products & Chemical Corporation
LOUISVILLE Incorporated KENTUCKY
KILLS BY CONTACT AND FUMES

A BROUGHT BACK CITRUS GROVE

(Continued from page 22.)

specimesn from which we each year picked over twelve dollars worth of nuts. Many others among them yielded nearly as well.

The last few years we owned the ranch when on the way to and from Fallbrook we delighted to stop on the hill top just outside of town and look at the ranch. The trees were so evenly formed and trimmed, and the land so free from other growth that the individual tree rows appeared much like wide green ribbons stretched across the gray-black soil. The dark marine painted buildings with their white trimming located the presence of habitation.

The writer felt no little satisfaction over the results of his efforts made in the face of supposedly competent condemnation of both resident and professional citrus authorities. After the successful termination they all knew that if I had followed their suggestions, as we had, the accomplished results would have been realized.

I, of course, expected the introducing agent, with the self assuming air belonging to the profession to say "I told you so didn't I?" He had.

A change in business location from Los Angeles to San Francisco made it necessary for us to dispose of the property. To make a quick sale the price we received for it was much below its real worth. But the price received less the fifteen hundred paid for it was a real profit.

None of the family has forgotten our happy associations with the Fallbrook ranch, and often have wished we still owned it and were where we could enjoy it.

It is no longer known as the "Old Williams Lemon and Walnut Ranch."

Our efforts proved what can be accomplished with a neglected citrus grove.

CLASSIFIED Advertisments

The rate for advertisements of this nature is only five cents per word for each insertion. You may count the number of words you have, multiply it by five, and you will have the cost of the advertisement for one insertion. Multiply this by the total number of insertions desired and you will have the total cost. This rate is so low that we cannot charge classified accounts, and would, therefore, appreciate a remittance with order. No advertisement accepted for less than 50 cents.

MISCELLANEOUS

DUSTER — Niagara, Air-Cooled engine Steel truck-mounted. Nearly new. Half price. Samuel Kidder, Monticello, Fla.

SEEDS—ROUGH LEMON, SOUR ORANGE, CLEOPATRA. Pure, fresh, good germination. Also seedlings lineout size. De Soto Nurseries, DeSoto City, Fla.

FANCY ABAKKA pineapple plants. R. A. Saeger. Ankona, Florida.

HIGH BLOOD PRESSURE easily, inexpensively overcome, without drugs. Send address. Dr. J. B. Stokes, Mohawk, Fla.

CROTALARIA SPECTABILIS—Seed for sale. New crop, well cured, bright and clean. Price 25c per pound in 100 pound lots and over, 30c per pound in less quantities, f. o. b. Hastings, Bunnell, Lowell and San Antonio, Florida. F. M. LEONARD & COMPANY, Hastings, Florida.

SCENIC HIGHWAY NURSERIES has a large stock of early and late grapefruit and oranges. One, two and three year buds. This nursery has been operated since 1883 by G. H. Gibbons, Waverly, Fla.

RAISE PIGEONS—Profit and pleasure. Illustrated descriptive catalogue postage six cents. Vrana Farms, Box 314a, Clayton, Missouri.

WANTED—RESIDENT SOLICITORS

to contact Grape Fruit & Orange packers & shippers, for one of the oldest receivers and Auction Specialists in New York. Address "C.B." P. O. Box 415, Tampa, Florida.

FOR SALE—Crotalaria seed, recleaned, Florida grown, germination tested. Striata @ 20c, Spectabilis @ 25c. F. O. B. Roy Taylor, Bartow, Fla.

ORANGE PACKERS ATTENTION — Two chemical transparent flexible orange coating processes for sale; royalty or license basis. Patent pending. Dr. C. V. Berry, 251 West 111th Street, New York City.

PUREBRED PULLETS FOR SALE—White Leghorns and Anconas ready to ship. Barred Rocks and R. I. Reds shortly. Several hundred yearling White Leghorn hens now laying 70%. Write or wire for prices. C. A. Norman, Dr. 1440, Knoxville, Tenn.

LAREDO SOY BEANS, considered free from nematode, excellent for hay and soil improvement. Write the Baldwin County Seed Growers Association, Loxley, Alabama, for prices.

WANTED—To hear from owner of land for sale. O. Hawley, Baldwin, Wis.

SATSUMA BUDWOOD from Bearing Trees. Hills Fruit Farm, Panama City, Fla.

WANTED—To hear from owner having good farm for sale. Cash price, particulars, John Black, Chippewa Falls, Wisconsin.

SEED—Rough lemon, sour orange, cleopatra. New crop from type true parent trees. Also thrifty seedlings. DeSoto Nurseries, DeSoto City, Florida.

STATE PLANT BOARD RULES REVISED

(Continued from page 6.)

lemons and oranges under certain safeguards.

Rule 29, prohibiting the entry of citrus fruits from Georgia, Alabama, Mississippi, Louisiana and Texas, was repealed on December 5, 1931.

WILMON NEWELL,
Plant Commissioner.

Gainesville, Florida,
February 17, 1932.

How To Put Out The Cat

Buy German police dog. Open door by which you wish cat to leave. Place cat near door. Release dog. Cat will leave.

Allow three neighbor's cats to start trio on the back fence. Cat will realize they lack a good first tenor. Cat will go out and join them.

Tie knot in cat's tail. Cat will be angry. Cat will be very much put out.—Carnegie Puppet.

C. D. Kime

Consulting Horticulturist

Grove Advisory Service, Soil Investigations, Research.

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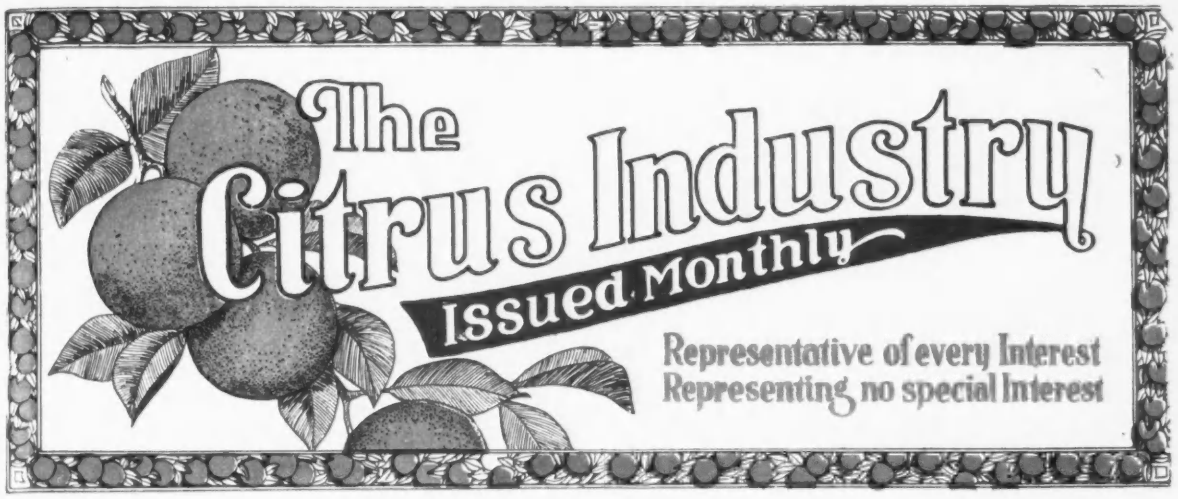

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HORTICULTURAL DEPT.
AGR. EXPERIMENT STATION

You may best keep informed as to news of the citrus industry as a whole by reading

The Citrus Industry

every month. No other Florida publication is devoted exclusively to citrus.

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Features In This Month's Issue

Annual Meeting Florida State Horticultural Soceity

High Lights of The Citrus Industry's Fight on Pests
By H. J. Quayle

Cull Fruit A Menance to The Industry
Editorial

Calcium Requirements of Citrus
By Prof. E. L. Lord

New Citrus Hybrids
By Walter T. Swingle, T. Ralph Robinson and E. M. Savage

Citrus Comments
By Chas. D. Kime

Impressions
By The Impressionist

Seald-Sweet

Mor-juce

OF COURSE

You Can Do Without It!

It is only human for a grower of long standing to think that the whole world is waiting, with mouths watering, for the excellent fruit he grows.

Often he claims with a kind of defiant pride: "I can get along without helping to organize this industry or cooperating through the Exchange."

Certainly you can—if you don't mind and are fiancially able to stand **constantly diminishing returns.**

But why should you want to?

You can continue to gamble on prices determined by faulty distribution of the state's crop, by competition of other fruits and by inadequate consumer demand.

You can continue to pay packing profits and exorbitant sales commissions to speculative operators.

You con continue to constantly increase your production without the safety valve of thoroughly developed by-products and markets for them.

Many growers of commodities the country over do.

But the most progressive, most successful and most far-sighted growers don't.

Admitting that you can do without an organized industry; without joining the Florida Citrus Exchange—where is the gain in denying yourself and your neighbor the definite advantages which admittedly can be obtained under such conditions?

Where is the wisdom in sacrificing time and money in attempting to compromise with the inevitable— in trying make-shift substitutions for definite standards of production, postive control of distribution, adequate consumer advertising and control of prices in line with the intrinsic worth of the fruit you grow?

That is why you owe it to yourself, your industry and your state to put your shoulder behind the wheel and obtain the definite advantages of organization through a grower-owned, grower-controlled cooperative.

Florida Citrus Exchange

Tampa, Florida